

4-H Training Topics - *Aerospace Adventures*

Background:

4-H *Aerospace Adventures* has information to provide children and youth opportunities to develop skills and knowledge in the areas of aviation and space including building kites and hot air balloons, exploring weather and aerospace careers, and connecting with aerospace educational resources.

Resource:

4-H *Aerospace Adventures*, *Aerospace Youth Activity Guide* or CD-ROM, *Stage 2 Lift-Off*, *Rockets Away*, pages 6-7.

Materials Needed:

- Newsprint,
- Markers,
- Tape.

Materials needed for every two staff members:

- Two 1" x 2 1/2" adhesive address labels,
 - One drinking straw (regular size),
 - One milk shake straw (slightly larger than a pencil).
- NOTE: Drinking straw must fit just inside the milk shake straw.

Preparation:

Make one copy for each participant of **Rockets Away**, **Stage 2 Lift-Off**, page 6 and **Experiential Learning Model**, **Flight Crew Helper's Guide**, page 6. Gather supplies and set out on tables in groups (adhesive address labels in one pile, drinking straws in another and milk shake straws in a third). Have at least one set of 4-H *Aerospace Adventures* curriculum. Write on newsprint the following:

1. Get in pairs.
2. Get a copy of the **Rockets Away** directions.
3. Do the activity.

Make a practice straw rocket to understand what to do. Allow 30 minutes for room set-up and preparation.

1 Opening Activity

What to Do	What to Say	Minutes
Post the directions on the wall or on an easel. Have Rockets Away directions on the table and supplies available to staff. As staff enters the room, be sure they see the directions.	Please note the directions on the wall. Find a partner and read through the directions but don't start building the rocket yet.	1

2 Curriculum

What to Do	What to Say	Minutes
Show how the 4-H <i>Aerospace Adventure</i> project is developmental and builds from one activity to the next. Show where the life skills are highlighted, the materials, the directions, an activity, and the process questions.	<i>Aerospace Adventures</i> is a project with lots of fun activities. There are four levels, a Helper's Guide and a CD-ROM . Today we are going to do just one quick activity.	2

3 Staff Introductions

What to Do	What to Say	Minutes
Make sure everyone is comfortable and has everything they need for the training.	My name is _____ and I have been with CYS Services for _____ years. To be sure everyone knows each other let's go around the room and quickly give your name and where you work.	5

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4 Doing an Activity

What to Do	What to Say	Minutes
<p>Give staff time to make their rockets.</p> <p>Once most of the staff has made their rocket, bring them together. Ask:</p> <p>Talk about the Experiential Learning Model. Provide examples of questions for each part of the model.</p>	<p>Now, it's time to build a rocket with the partner selected when you arrived.</p> <p>How did making the rocket go? Were the directions clear? Were there enough materials? Remember the 4-H motto, Learn By Doing? How would you teach someone to make a similar rocket in a way that lets the "student" learn by doing before being told or shown how?</p> <p>Learning by doing is a part of the Experiential Learning Model. Let's look at the handout that outlines the steps.</p> <p>The first step is EXPERIENCE the activity. Many times staff stops after the activity and moves on to the next activity, If that's done the opportunity is lost to turn activities into learning experiences.</p> <p>Asking children and youth to SHARE (step 2) what they did. This provides the opportunity to generate information and share their observations with one another.</p> <p>The next step is to PROCESS by looking at the experience and discussing common themes that emerge in more depth.</p> <p>Next GENERALIZE or connect the experience to real-world examples.</p> <p>The last step is to APPLY or share how they can use what they learned in other areas.</p> <p>For the rocket building activity questions might include: SHARE: Explain how you made your rocket. Share with your helper how you taught your friend.</p> <p>PROCESS: How is this straw rocket similar to a model rocket? How is it different? What happened each time the fins were changed?</p> <p>GENERALIZE: How do you feel about teaching others? About learning from others? What do you like others to do when they are teaching you something new?</p> <p>APPLY: If you were going to teach a friend how to do something, how would you do it?</p>	20



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5 Sharing Ideas

What to Do	What to Say	Minutes
Have a short discussion about the experience.	Was making the rocket fun? Will the children or youth at the center enjoy this activity? How might youth be encouraged to participate in this project?	3

6 Applying the Experience

What to Do	What to Say	Minutes
Apply this experience to other activities conducted at the center.	What was learned from this training that can apply to something happening at the center this next week? How will this activity need to be changed so it works well with the children/youth? Was this a useful experience? How could it be changed to be more useful? Are there other resources needed to do this with children/youth?	3

7 Making a Plan

What to Do	What to Say	Minutes
Make a plan for starting the 4-H <i>Aerospace Adventures</i> project.	Now it's time to work as a group and set some dates for the project. When should meetings begin with the children? What ideas have they given children suggested for this project? Who is the adult project leader? When should the group meet again for more planning and reflection?	7

8 Closing

What to Do	What to Say	Minutes
Summarize and close.	<p>This one short project activity can be used to interest children in 4-H <i>Aerospace Adventures</i>. It will take more time when working with children or youth, especially if the group is larger. Get ideas from the youth and plan 6 to 10 activities for the project. The 4-H project materials all have lots of activities that can be turned into lesson plans and are fun for children and youth.</p> <p>Are there questions? Thank you for your interest and enthusiasm.</p>	2

